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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,473	10/16/2003	Martin G. Klein	01628/46401	5441
23838	7590	09/12/2006	EXAMINER	
KENYON & KENYON LLP 1500 K STREET N.W. SUITE 700 WASHINGTON, DC 20005			YUAN, DAH WEI D	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/685,473

Applicant(s)

KLEIN, MARTIN G.

Examiner

Dah-Wei D. Yuan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/5/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19-23 and 33-38 is/are pending in the application.
- 4a) Of the above claim(s) 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 33-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

MULTI-CELL BATTERY CHARGE CONTROL

Examiner: Yuan

S.N. 10/685,473

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September 7, 2006

Detailed Action

1. The Applicant's request for consideration filed on July 5, 2006 was received.
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on April 4, 2006.

Claim Rejections - 35 USC § 112

3. Claim rejections under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention on claims 1-17,33-38 are maintained. The recitation "each cell having an area to expand in response to pressure generated within the respective cell, the expandable area of each cell being aligned with a corresponding expandable area of at least one adjacent cell" in claim 1 does not described in the specification in such a way as to enable one skilled in the art to make and use the invention. The instant specification teaches the individual bipolar wafer cells has a pressure tab area that can exert a force to trigger a pressure sensitive mechanism when gas pressure is generated within the wafer cell. The pressure tab may increase in thickness or area in response to the increase in pressure of the battery. The specification further discloses the tab area is made of a material that expands in response to pressure. See paragraphs 31,32,38,39. However, the disclosure provides no teachings or enablement to demonstrate what the tab area is made of and what is the

dimensional requirement of the tab. The characteristic of the spacer, which disposed between the tabs, is not discussed. It is unclear whether the spacer expands and how it expand in relationship to the tabs of the cell. The standard for determining whether the specification meets the enablement requirement is to answer the question; is the experimentation needed to practice the invention undue or unreasonable? There is no evidence on the record that shows what kind of pressure-sensitive material is used, what the expansion force this tab area would generate in response to pressure, and what the expansion in the thickness direction is required to trigger the pressure sensor. It is, therefore, concluded that the specification at the time of the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation.

Response to Arguments

4. Applicant's arguments filed on July 5, 2006 have been fully considered but they are not persuasive.

Applicant's principle arguments are

(a) The manufacture and use of cell envelopes is known in the art as incorporated by reference in U.S. 5,393,617, 5,552,243 and 6,503,658;

(b) the "area to expand" may include a spacer between the laminations of the cell envelope.

In response to Applicant's arguments, please consider the following comments.

(a) The '243 reference teaches the use of a non-conductive material to seal peripherally the outer layers to form a border material around the entire perimeter of the electrodes such as to form a sealed enclosure containing the pair of electrodes, the separator and the electrolyte within the wafer cell. If gas pressure is generated, i.e., oxygen or hydrogen, within the electrodes, the cell envelope expands slightly to prevent excess buildup of pressure. See Column 5, Lines 1-42. On the contrast, the instant specification shows the thin plastic film layer (104) is wrapped around the perimeter of the metal foils (117,118) in the wafer cell. It is unclear how pressure is generated by the metal foils within the envelope. The three references only disclose the stacked wafer cells in general and are not directly related to the subject matter of the instant invention;

(b) the instant discloser does not discuss the area to expand including the plastic spacer. It does not appear that the spacer is part of the cell, which includes an outer laminated positive contact face (101), a positive electrode (151), separator layers (110,111), a negative electrode (152) and an outer laminated negative contact face (102). See paragraph 35. Furthermore, the characteristics of the generic "plastic spacer" are not discussed. One of ordinary skill in the art would not know how to make and/or use the full scope of the claimed invention without undue experimentation.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (571) 272-1295. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dah-Wei D. Yuan
September 7, 2006

A handwritten signature in black ink, appearing to read 'D. Yuan', with a long horizontal flourish extending to the right.

DAH-WEI YUAN
PRIMARY EXAMINER